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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,824	07/23/2003	Randall Lewis Silagi	GIC-666	2532

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EXAMINER

KIM, PAUL

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,824	SILAGI ET AL.	
	Examiner	Art Unit	
	Paul Kim	2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>August 11, 2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the following: Original Application filed on July 23, 2003.
2. Claims 1-26 are pending. Claims 1 and 14 are independent.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 12 and 25** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant fails to describe how the Binary Tree Algorithm is to be applied to the claimed invention in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1 and 14** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding **independent claims 1 and 14**, it is unclear whether "a plurality of multimedia transport streams" recited in lines 1-2 of the claims is the same as or different from "a plurality

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of transport streams” recited in line 3 of the claims. Additionally, it is unclear whether “multimedia program information” recited in line 1 of the claims is the same as or different from “program information” recited in lines 3 and 5-7 of the claims.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1, 6, 13, 14, 19, and 26** are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuura (U.S. Patent No. 6,286,037, hereinafter referred to as MATSUURA) filed on April 23, 1998, and issued on September 4, 2001.

10. Regarding **independent claims 1 and 14**, MATSURRA teaches:

A method for collecting multimedia program information from a plurality of multimedia transport streams {See MATSUURA, col. 4, lines 22-31, wherein this reads over “[t]he number of transport streams corresponds to the number of transponders equipped in the communication satellite”; col. 6, lines 27-31, wherein this reads over “program information and the program data are transmitted . . . by different transponders in the communication satellite”}, comprising:

receiving a plurality of transport streams, each of which contains program information regarding multimedia programs carried in the transport stream {See MATSUURA, col. 5, lines 57-59, wherein this reads over “[i]n the receiver system 2, the program information received from the sender system 1 is compared with the user’s desirable setting list”}

receiving requests for collecting program information, said requests identifying program information to be collected from one or more of the transport streams {See MATSUURA, col. 3, lines 12-23, wherein this reads over “data receiving method for receiving program data and program information which is information data on the program data”},

obtaining program information from the plurality of transport streams as they are received {See MATSUURA, col. 4, lines 23-31, wherein this reads over “transmission data is compressed by the MPEG2 encoder A chain of transport packets forms a transport stream”; col. 5, lines 57-59, wherein this reads over “the program information received”}; and

processing the obtained program information in accordance with the requested program information to locate a match between the requested and received program information {See MATSUURA, col. 5, lines 59-61, wherein this reads over “necessary program data selected with reference to the result of the comparison is downloaded”};.

11. Regarding **dependent claims 6 and 19**, MATSUURA teaches:

The method of claim 1 further comprising the step of notifying an application requesting the program information once a match is located {See MATSUURA, col. 9, lines 2-17, wherein this reads over “individual items of the program specification are compared with items a search is made to check whether the program information 21 matching with the user desirable setting list exists or not . . . the program number 22 written in the program information 21 is extracted”}.

12. Regarding **dependent claims 13 and 26**, MATSUURA teaches:

The method of claims 1 wherein plurality of requests is received simultaneously from different applications {See MATSUURA, col. 6, lines 28-40, wherein this reads over “program information and the program data are transmitted in different frequency bands, for example and repeated by different transponders . . . and is possible to transmit them in a common frequency band and to repeat with a single transponder”}.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claims 2-5, 8, 15-18, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over MATSUURA, in view of Metz et al (U.S. Patent No. 5,666,293, hereinafter referred to as METZ), filed on July 3, 1995, and issued on September 9, 1997.

MATSUURA teaches the limitations of claims 1, 6, 13, 14, 19, AND 26 for the reasons stated above.

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein at least one of the transport streams is an MPEG transport stream (claims 2 and 15).

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein the requested program information is comprised of multiple fields (claims 3 and 16).

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein the fields include at least one Program Identification (PID) Code (claims 4 and 17).

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein processing of the program information is done asynchronously with respect to said receiving step (claims 5 and 18).

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein the program information carried in the transport streams is received out of the sequence specified in the request (claims 8 and 21).

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15. Regarding **dependent claims 2 and 15**, MATSUURA, in combination with METZ, discloses the method wherein at least one of the transport streams is an MPEG transport stream *{See METZ, col. 12, Para. 4, wherein this reads over “converts the data stream to an MPEG II transport stream consisting of packets of the type show in Fig. 3”}*.

The combination of inventions disclosed in MATSUURA and METZ would disclose an invention which would consist of transport streams wherein at least one the transport streams is an MPEG transport stream. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification since MPEG transport streams are commonly used to transport multimedia programs.

16. Regarding **dependent claims 3 and 16**, MATSUURA, in combination with METZ, discloses the method wherein the requested program information is comprised of multiple fields *{See METZ, col. 11, Paras. 3-5, wherein this reads over “[e]ach frame of compressed audio or video program information is broken down into a series of transport packets”, “each packet includes a packet identifier (PID) value”, and “each 188 byte transport stream packet consists of two or three sections, a 4 byte packet header section, a payload section and/or an optional adaptation field”}*.

The combination of inventions disclosed in MATSUURA and METZ would disclose an invention which would consist of program information which is broken down into a series of transport packets which containing multiple fields or sections such as, for example, a header section. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification since program information is commonly carried by transport packets containing multiple fields and sections.

17. Regarding **dependent claims 4 and 17**, MATSUURA, in combination with METZ, discloses the method wherein the fields include at least one Program Identification (PID) Code *{See METZ, col. 11, Para. 4, wherein this reads over "each packet includes a packet identifier (PID) value . . . Different PID values are assigned to different programs and content"}*.

The combination of inventions disclosed in MATSUURA and METZ would disclose an invention which would consist fields which included at least one Program Identification (PID) Code. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification since some sort of identification is necessary in identifying the different programs and content contained in the transported packets.

18. Regarding **dependent claims 5 and 18**, MATSUURA, in combination with METZ, discloses the method wherein the processing of the program information is done asynchronously with respect to the receiving step *{See METZ, col. 5, Para. 3, wherein this reads over "[t]he preferred network utilizes Asynchronous Transfer Mode (ATM) transport"}*.

The combination of inventions disclosed in MATSUURA and METZ would disclose an invention which would process the program information asynchronously with respect to the receiving step through the use of an Asynchronous Transfer Mode (ATM) transport. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification since the ATM transport allows for adapting the MPEG packets into ATM cells and thereafter multiplexing ATM cells from one or more programs together for transport through an ATM broadcast network.

19. Regarding **dependent claims 8 and 21**, MATSUURA, in combination with METZ, discloses the method wherein the program information carried in the transport streams is received out of the sequence specified in the request *{See METZ, col. 11, Para. 3, wherein this reads over "[e]ach frame of compressed audio or video program information is broken down into a series of transport packets"; col. 12, lines 40-43, wherein this reads over "data module 27 also constructs a number of packets used to find and decode desired sequences of packets in the stream"; and lines 48-51, wherein this reads over "data module 27 receives a repeating or cyclical sequence of one or more data files from the server 12 and supplies a repeating sequence of MPEG II packets to the ATM multiplexer"}*.

The combination of inventions disclosed in MATSUURA and METZ would disclose an invention wherein the program information is broken down into a series of transport packets, and the program information carried in the transport stream is received out of the sequence specified

in the request. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by METZ.

One of ordinary skill in the art would have been motivated to do this modification since requests for program information are matched against incoming program information as they are received from the incoming multimedia transport streams, therefore necessitating the need for having a method wherein the program information is received in sequence to the specified request.

20. **Claims 7 and 20** are rejected under 35 U.S.C. 103(a) as being unpatentable over MATSUURA, in view of Thomas et al (U.S. Patent No. 5,666,645, hereinafter referred to as THOMAS), filed on April 26, 1995, and issued on September 9, 1997.

21. Regarding **dependent claims 7 and 20**, MATSUURA, in combination with THOMAS, discloses the method wherein the application requesting the program information periodically queries the status of the request *{See THOMAS, col. 10, lines 43-55, wherein this reads over “[a]utomated processes 620 poll the status and control database 610 for commands that have been set by the system operator. Automated processes 620 also provide status data to status and control data 610” and “Automated system monitor 650 continuously evaluates the status and control data”}*.

The combination of inventions disclosed in MATSUURA and THOMAS would disclose an invention wherein the application requesting the program information periodically queries the status of the request. Therefore, it would have been obvious to one of ordinary skill in the art at

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the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by THOMAS.

One of ordinary skill in the art would have been motivated to do this modification so that where program information is requested, the application could receive notice of the status of the request.

22. **Claims 9 and 22** are rejected under 35 U.S.C. 103(a) as being unpatentable over MATSUURA, in view of O'Loughlin, (U.S. Patent No. 6,275,505, hereinafter referred to as O'LOUGHLIN), filed on May 30, 1998, and issued on August 14, 2001, and in further view of Gough, (U.S. Patent No. 6,442,329, hereinafter referred to as GOUGH), filed on February 26, 1999, and issued on August 27, 2002.

MATSUURA teaches the limitations of claims 1, 6, 13, 14, 19, AND 26 for the reasons stated above.

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a method wherein the processing includes dividing the requested information into multiple lists and searching each list as program information is received from the transport streams (claims 9 and 22).

23. Regarding **dependent claims 9 and 22**, MATSUURA, in combination with O'LOUGHLIN, discloses a method wherein the processing includes dividing the requested information into multiple lists *{See O'LOUGHLIN, col. 37, line 66 – col. 38, line 3, wherein this reads over “generating the linked list . . . Based on the weight factors, the linked list 926 is divided into distribution sections”}* and searching each list as program information is received from the transport streams *{See GOUGH, col. 10, lines 51-67, wherein this reads over “a*

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method for traversing a multiplexed data packet stream . . . [by] making a bi-directional search from the starting location to locate a nearest system stream object"}.

The combination of inventions disclosed in MATSUURA, O'LOUGHLIN, and GOUGH would disclose an invention wherein the processing includes dividing the requested information into multiple lists and searching each list as program information is received from the transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA by combining it with the invention disclosed by O'LOUGHLIN and GOUGH.

One of ordinary skill in the art would have been motivated to do this modification in order to search and compare procedures for a matching single packet.

24. **Claims 10-11 and 23-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over MATSUURA, in view of O'LOUGHLIN and GOUGH, and in further view of Look et al (U.S. Patent No. 6,747,906, hereinafter referred to as LOOK), filed on March 30, 2000, and issued on June 29, 2004.

MATSUURA teaches the limitations of claims 1, 6, 13, 14, 19, AND 26 for the reasons stated above.

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a linear search algorithm which is used to conduct the search (claims 10 and 23).

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a binary search algorithm which is used to conduct the search (claims 11 and 24).

25. Regarding **dependent claims 10 and 23**, MATSUURA, in combination with O'LOUGHLIN, GOUGH, and LOOK, discloses a linear search algorithm which is used to

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conduct the search *{See LOOK, col. 6, lines 1-8, wherein this reads over “linearly parse the stream from the beginning to find the desired location”}*.

The combination of inventions disclosed in MATSUURA, O’LOUGHLIN, GOUGH, and LOOK would disclose an invention wherein a linear search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA, O’LOUGHLIN, and GOUGH by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a linear search algorithm is a well-known search method within the art.

26. Regarding **dependent claims 11 and 24**, MATSUURA, in combination with O’LOUGHLIN, GOUGH, and LOOK, discloses a binary search algorithm which is used to conduct the search *{See LOOK, col. 5, line 66 – col. 6, line 6, wherein this reads over “[a] binary search can be performed on a stored file to index into a stream. Each stream is stored as a sequence of fixed-size segments enabling fast binary searches”}*.

The combination of inventions disclosed in MATSUURA, O’LOUGHLIN, GOUGH, and LOOK would disclose an invention wherein a binary search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA, O’LOUGHLIN, and GOUGH by combining it with the invention disclosed by LOOK.

One of ordinary skill in the art would have been motivated to do this modification because a binary search algorithm, a well-known search method within the art, improves the search efficiency.

27. **Claims 12 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable over MATSUURA, in view of Que ("Special Edition Using Microsoft Access 2000," published by Que, hereinafter referred to as QUE), published on May 5, 1999.

MATSUURA teaches the limitations of claims 1, 6, 13, 14, 19, AND 26 for the reasons stated above.

MATSUURA differs from the claimed invention in that MATSUURA fails to disclose a binary tree search algorithm which is used to conduct the search (claims 12 and 25).

28. Regarding **dependent claims 12 and 25**, MATSUURA, in combination with O'LOUGHLIN, GOUGH, and QUE, discloses a binary tree search algorithm which is used to conduct the search *{See QUE, Para. 3, wherein this reads over "[b]inary tree searches optimize the searching process by minimizing the number of comparisons required to zero-in on the record(s) with the desired value"}*.

The combination of inventions disclosed in MATSUURA, O'LOUGHLIN, GOUGH, and QUE would disclose an invention wherein a binary tree search algorithm is used to conduct the search of transport streams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the above invention suggested by MATSUURA, O'LOUGHLIN, and GOUGH by combining it with the invention disclosed by QUE.

One of ordinary skill in the art would have been motivated to do this modification a binary tree search algorithm, a well-known search method within the art, improves the search efficiency.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Cuccia (U.S. Patent No. 6,147, 673) discloses a decoding system and a method for a plurality of transport streams in which program specific information is extracted from the plurality of transport streams.

Mukai et al (USPGPUB No. 2002/0116713) discloses a means for receiving virtual channel information.

Kaku (USPGPUB No. 2003/0048854) discloses an apparatus for routing data packets by processing MPEG data streams with associated PIDs.

Peting (USPGPUB No. 2003/0118127) discloses an architecture and method for concurrently processing multimedia data from several satellite transponders or satellite carriers.

Straub et al (EP 0 921 681) discloses a data match detecting apparatus which sequentially receives input data comprising plural fields.

Mizobata et al (EP 0921 681) discloses a process for managing program information.

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is (571) 272-2737. The examiner can normally be reached on M-F, 9am - 5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (571) 272-4023. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SAM RIMELL
PRIMARY EXAMINER